

WHAT IS CLAIMED IS:

1. A transport member essentially consisting of fiber-reinforced plastic,

wherein said fiber-reinforced plastic comprises:

5 at least one first layer containing a unidirectional reinforced fiber, oriented by -20° to +20° with respect to a longitudinal direction of said transport member, having a tensile elasticity of 500 to 1000 GPa; and

at least one second layer containing a unidirectional reinforced fiber, oriented by +75° to +90° and/or -75° to -90° with respect to said longitudinal direction of said transport member, having a tensile elasticity of 200 to 400 GPa.

15 2. A transport member according to claim 1, wherein said fiber-reinforced plastic further comprises at least one third layer containing a unidirectional reinforced fiber, oriented by +30° to +60° and/or -30° to -60° with respect to said longitudinal direction of said transport member, having a tensile elasticity of 500 to 1000 GPa.

20 3. A transport member comprising skin and core layers essentially consisting of a fiber-reinforced plastic; wherein said skin layer comprises at least two first layers containing a unidirectional reinforced fiber, oriented by -20° to +20° with respect to a longitudinal direction of said transport member, having a tensile elasticity of 500 to 1000 GPa.

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4. A transport member according to claim 3, wherein
said core layer comprises at least two second layers
containing a unidirectional reinforced fiber, oriented by
+75° to +90° and/or -75° to -90° with respect to said
longitudinal direction of said transport member, having a
tensile elasticity of 200 to 400 GPa; or at least one third
layer containing a unidirectional reinforced fiber, oriented
by +30° to +60° and/or -30° to -60° with respect to said
longitudinal direction of said transport member, having a
tensile elasticity of 500 to 1000 GPa.

5. A transport member comprising laminated skin and
core layers made of carbon-fiber reinforced plastic;

wherein said skin layer comprises:

15 a first layer containing a first carbon fiber, oriented
by an angle range of -20° to +20° with respect to a longitudinal
direction of said transport member, having a tensile
elasticity of 500 to 1000 GPa; and

20 a second layer containing a second carbon fiber,
oriented by an angle range of +75° to +90° and/or -75° to
-90° with respect to said longitudinal direction, having
a tensile elasticity of 200 to 400 GPa.

6. A transport member according to claim 1, 3, or
5, wherein said transport member has a bending elasticity
of 200 to 800 GPa in said longitudinal direction, and a bending
elasticity of 30 to 100 GPa in a transverse direction thereof.

7. A transport member according to claim 3 or 5,

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wherein said transport member satisfies the relationship represented by the following expression (1):

$$(T_s + T_c) \times 0.2 \leq T_s \leq (T_s + T_c) \times 0.4 \quad (1)$$

where

5 T_s is the thickness of said skin layer; and

T_c is the thickness of said core layer.

8. A transport member according to claim 3 or 5, wherein said first layer in said skin layer has a volume of 20 to 100 vol% in said skin layer.

10 9. A transport member according to claim 4 or 5, wherein said second layer has a volume of 0 to 80 vol% in said skin layer.

15 10. A transport member according to claim 4, wherein said third layer in said core layer has a volume of 0 to 20 vol% in said core layer.

11. A transport member according to claim 1, 3 or 5, wherein said transport member has a logarithmic vibration damping factor of 0.01 to 0.05 against bending vibration.

20 12. A transport member according to claim 3 or 5, wherein said core layer has a bulk specific gravity falling within the range of 0.03 to 1.7 and smaller than that of said skin layer.

25 13. A transport member according to claim 5, wherein said core layer comprises a honeycomb, a porous body, a corrugated sheet, a fiber-reinforced plastic, or a resin sheet.